



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Indian Health Service
Billings, Montana 59103

Bill Lowe
A. Scully

OCT 23 1998

Refer to: OEHE/AFM

To: Associate Director, Office of Environmental Health and Engineering
Rockville, Maryland
Attention: Director, Division of Facilities Management
THROUGH: Associate Area Director
Office of Environmental Health and Engineering *offu*

From: Area Facilities Management Officer
Billings Area

Subject: Area Energy Management Report – Fiscal Year 1998

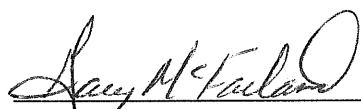
The attached Area Energy Management Report for Fiscal Year 1998 is forwarded for your review. If you have any questions, please call Ron Klem, Area Facilities Construction Coordinator, at (406) 247-7089.


Gary McFarland, P.E.

Attachment

FY-98 ENERGY MANAGEMENT REPORT
BILLINGS AREA

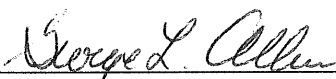
REVIEWED BY:



Area Facilities Management Officer

10/20/98
Date

CONCURRENCE:



Associate Area Director, Office of Environmental
Health and Engineering, Billings Area

23 Oct 1998
Date

FY-98 ENERGY MANAGEMENT REPORT
BILLINGS AREA

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BILLINGS AREA

INTRODUCTION

This report is provided in accordance with Chapter 12 of the Facilities Engineering Program Plan, Technical Handbook for Health Facilities. Additional guidelines were provided by Indian Health Service Headquarters on September 16, 1998, and were incorporated in the report. Only those buildings within the Billings Area which are directly operated and maintained have been reported. This constitutes 62 buildings at an area of 447,152 square feet.

Although energy conservation projects for quarters are performed, the tenants pay for their own utilities. Therefore, no monitoring methods can be established. Compacted tribes and some tribes utilizing buildings under P.L.93-638 contracts do not report energy conservation activities to the Billings Area Office.

A. Annual Energy Management Data Report

In accordance with the National Energy Conservation Policy Act, as amended by the Energy Policy Act of 1992, the Indian Health Service is targeted to reducing its energy consumption by 20% from 1985 to the year 2000. In addition, Executive Order 12902 has set a 30% energy reduction goal by the year 2005. Annual monitoring at the Service Units and Area Offices provides the necessary means in managing the program.

I. Energy Consumption and Cost Data

OPDIV:	IHS, Billings Area	REPORTED YEAR:	Fiscal Year 1998
PREPARED BY:	Ron Klem, P.E.	TITLE:	Construction Coord.
PHONE NUMBER:	406-247-7089	DATE SUBMITTED:	October 8, 1998

Buildings/Facilities:

Energy Type	Reporting Units	Annual Consumpt- ion	Annual Cost	Unit Cost	Total BTU (1,000,000)
Electricity	KWH	5,679,803	\$403,266	\$.071/KWH	19,397

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Fuel Oil	Thous. Gal.	None Reported			
Natural Gas	Thous. Cu. Ft.	34,612	\$103,836	\$3.00/Thous. Cu. Ft.	39,804
LPG	Gallons	6,950	\$7,089	\$1.02/gal	285
TOTALS:			\$514,191		59,486

Gross Square Feet	BTU/Gross Square Feet	\$/Gross Square Feet
447,152	133,033	\$1.15

Tactical Vehicles/Equipment:

Energy Type	Reporting Units	Annual Consumption	Annual Cost	Unit Cost
Auto Gas	1,000 Gallons	GSA Provided		
Other	1,000 Gallons	None		

II. Energy Conservation Program Summary

AGENCY:	IHS, Billings Area	REPORTED YEAR:	Fiscal Year 1998
PREPARED BY:	Ron Klem, P.E.	TITLE:	Construction Coord.
PHONE NUMBER:	406-247-7089	DATE SUBMITTED:	October 8, 1998

Direct Agency Expenditures:

Annual Expenditures, Current Fiscal Year	\$22,966
Annual Expenditures, Next Fiscal Year	\$92,500

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Annual Anticipated Savings, Energy	8,850,000,000 BTU
Annual Anticipated Savings, \$	\$23,090

Energy Savings Performance Contracts:

Number of ESP Contracts Awarded	None
Annual Savings Anticipated	None

Utility Incentives:

Incentives received	None
Funds Spent to Receive Incentives	None
Annual Savings Anticipated	None

Training:

Current Year Expenditures for Training	\$0
Number of Personnel Trained	0

B. Energy Consumption Reduction Goals

Buildings consume energy for heating, air conditioning, lighting, computer systems, and other various types of equipment. Reducing this energy consumption without impairing the indoor environment or the services for patient care is a realistic goal pursued by the Billings Area Office.

Monitoring of the energy consumption in the Billings Area showed another significant reduction of energy per gross square foot from the two previous year's reports. Much of this year's reductions was due to the mild winter and the limited energy consumption provided for inactive buildings. Transfer/Demolition of these old buildings should take place during Fiscal Year 1999.

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C. Energy Saving Performance Contracts

At the present time, there are no specific energy saving performance contracts in place.

D. Energy Efficiency and Water Conservation Project Funding

The Facilities Management Branch utilizes Maintenance and Improvement (M&I), Quarters, and Medicare/Medicaid (M&M) funds to construct, repair, and retrofit the medical facilities and quarters in Montana and Wyoming with energy efficient systems. Energy efficient lighting systems, building insulation materials, HVAC energy management control systems, and fuel source conversions (i.e., electrical to propane) have all been designed into various projects this year.

E. Energy and Water Surveys and Audits

No energy and water surveys or audits were conducted at the Service Units this year.

F. Implementation of Energy and Water Conservation Projects

Since there were no energy audits conducted, no "official" deficiencies were eliminated. However, energy conservation projects were conducted as follows:

SERVICE UNIT	PROJECT	COST
Blackfeet	Replace Furnaces with Energy Efficient Types in Quarters	\$2,496
Fort Belknap	Replace Furnaces with Energy Efficient Types in Quarters	\$8,135
Fort Peck	Insulate Quarters	\$12,335
	TOTALS:	\$22,966

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FY 1998**

**INDIAN HEALTH SERVICE
BILLINGS AREA
October 8, 1998**

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G. Solar and other Renewable Energy

The use of solar energy in this geographical region is not viable. Wind generators at Browning, Montana, are being tested by the local power company. There are no alternative energy projects planned at this time.

H. Minimization of Petroleum-Based Fuel Use

No information to report.

I. Energy Efficient Operations/Maintenance Procedures

Operation and Maintenance (O&M) procedures include Preventive Maintenance (PM) techniques to keep the building operating systems at their highest efficiency levels. Examples involve boiler systems, air handlers, and light fixtures. Other facility areas are constantly monitored during daily inspections, such as weather stripping, window air seepage, unsealed wall penetrations, and overhead door areas.

J. Energy Efficiency in New Space

Energy efficient systems are designed into all of the projects overseen or developed by the Facilities Management Branch. Energy efficient building components and maintenance free devices are constantly reviewed and incorporated into new project designs.

New facilities constructed, or being constructed, in the Billings Area include Heart Butte Clinic, Pryor Clinic, Fort Belknap Health Center, and Northern Cheyenne Health Center. All are being constructed with energy efficient systems, insulated building envelopes, and HVAC control systems.

K. Performance Evaluations

No information to report.

L. Incentive Awards

No information to report.

M. Procurement of Energy Efficient Products

With the use of *SweetSource*, a product information catalog, new energy efficient products are reviewed by the Facilities Management Branch engineers. These computerized CD catalogs are updated and provided on a quarterly basis by the contracted vendor. Incorporation of selected products are provided in project design specifications.

N. Energy Management Training

The biggest energy drain in Montana and Wyoming is the heating requirement. Facility Managers are trained on the Direct Digital Controls (DDC's) of their specific HVAC system to properly maintain and operate them in an efficient manner. Other energy management courses are offered when available within the area.

O. Environmental Impacts of Energy Management Activities

No information to report.